



TDA-40-860R40
Indoor Distribution Amplifier
INSTRUCTION MANUAL

FEATURES

- Hybrid Circuitry for High Output and Low Distortion
- Front Panel Gain & Slope Controls
- External -30 dB Test Points
- Finned Aluminum Chassis for Heat Dissipation
- 54-860 MHz Forward Gain Bandwidth
- 5-40 MHz Reverse Bandwidth
- 40 dB Forward Gain
- Active or Passive Reverse
- External Fuse Designed for Over Current Protection



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Made in Taiwan

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SPECIFICATIONS

	Forward	Reverse
Frequency Range	54-860 MHz	5-40 MHz
Gain	38 dB typical	-1.5 dB (+18 dB) typical
Flatness	±1 dB	±1 dB
Gain Control Range	20 dB	10 dB
Slope Control Range	18 dB	10 dB
Return Loss		
Input	8 dB	14 dB
Output	8 dB	14 dB
Noise Figure	9 dB	9 dB
Output Level	40 dBmV	35 dBmV
Composite Triple Beat (CTB)	-46 dB*	
Cross Modulation (X-Mod)	-43 dB*	
Second Order Intermodulation	-52 dB*	
Hum Modulation	-65 dB @ maximum gain	
Test Ports	-30 dB	
External Fuse	5 x 20mm 0.35A, 250V	
Internal Fuse	5 x 20mm 1.0A, 250V	
Operating Temperature Range	-10°C to +60°C	
Power Requirements	117 VAC 60 Hz 220 mA	
Size	8.75" x 7" x 2.625"	
Weight	5 pounds	

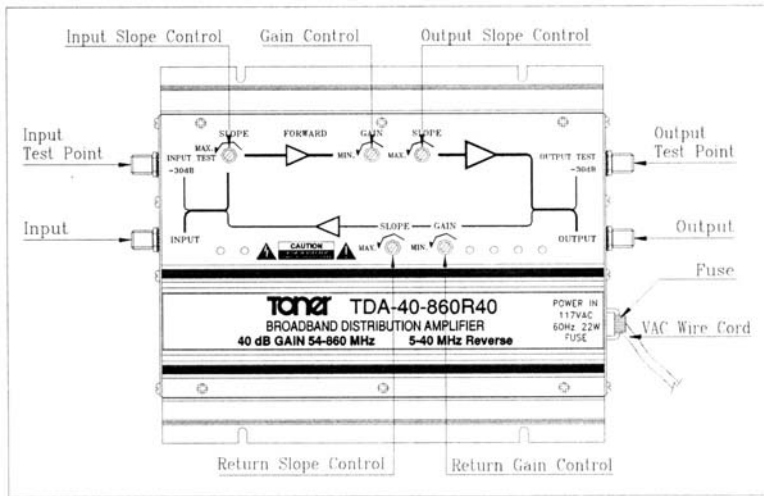
*with 129 channel loading

SETUP / OPERATION

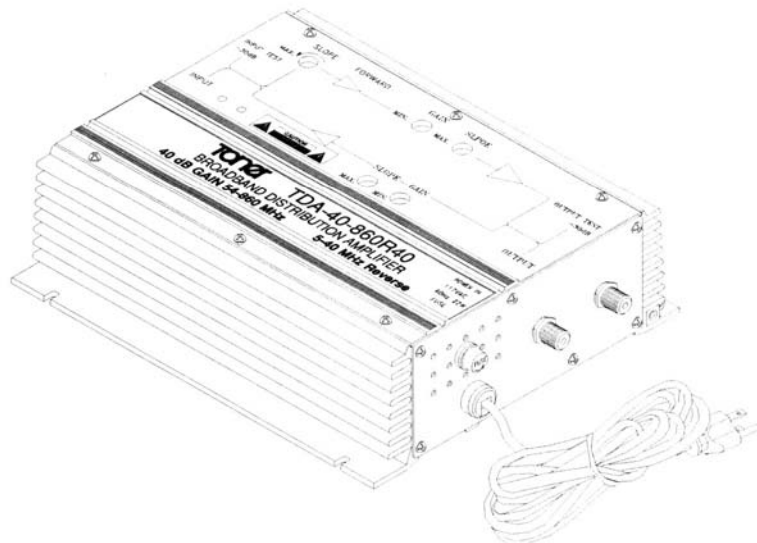
1. The amplifier is supplied from the factory with the passive reverse module installed. For active reverse, see installation on next page.
2. The amplifier has a forward bandwidth of 54-860 MHz with a maximum of 40 dB gain.
3. The optimal input level for proper amplifier operation and to meet specifications is 0 to 20 dBmV.
4. The optimal output level for proper amplifier operation and to meet specifications is 30 to 46 dBmV.
5. The optimal levels for return path is input 3-18 dBmV, and output 20-35 dBmV* (*when reverse amplifier option is used).
6. The input slope control is used to equalize the input signal.
7. The gain control is used to adjust the output level of the amplifier.
8. The second slope control is used to adjust the slope or tilt of the output of the amplifier.
9. The reverse slope and gain control perform the same functions on the return path when the reverse amplifier module is utilized.

INSTALLATION OF ACTIVE REVERSE MODULE TDA-RA84

1. Unplug amplifiers and remove input & output cables and terminators on test points.
2. Remove the 8 Phillips head screws holding front cover on.
3. Loosen the 10 Phillips head screws holding the end covers on and lift off front cover.
4. Remove all 3 / 8-32 nuts and washers on the F ports.
5. Remove the loosened Phillips head screws holding the left end cover on and remove cover.
6. Unplug the power cable connecting the forward amplifier module to the power supply P.C. board.
7. Gently lift out the two amplifier modules from the housing.
8. Separate the two modules and set the passive reverse module aside.
9. Carefully line up the connectors on the amplifier module with the connectors on the reverse amp module and press the two modules together.
10. Reinstall the modules back in the housing reversing the procedure used for removing. **(Note: Be Sure to Plug in the Amplifier Module Power Cord).**
11. Tighten down all screws and nuts with a screwdriver and wrench.
12. Install reverse amplifier label (supplied with reverse amp module) on front cover, lining up the holes in the label with the holes in the cover.



CONTROLS



TDA-40-860R40

The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION

Risk of Electric Shock
Do Not Open

The Lightning flash with arrowhead triangle is intended to alert you to the presence of uninsulated "dangerous voltage" within the products supplementary external power supply enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER FROM THIS UNIT. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL THIS UNIT IS FOR INDOOR USE ONLY.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV System Installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

IMPORTANT SAFEGUARDS

Read all instructions prior to installation and use.

Retain Instructions – The safety and operating instructions should be retained for future reference.

1. **Heed Warnings** – All warnings on the amplifier and in the operating instructions should be adhered to.
2. **Follow Instructions** – All operating and use instruction should be followed.
3. **Water and Moisture** – Do not use near water – for example, in a wet basement, or near a swimming pool, and the like. This product is designed for indoor use only. Do not expose this product to rain or moisture.
4. **Mounting and Ventilation** – Proper mounting to a suitable surface utilizing the mounting holes in the bottom flange of the amplifier is essential to insure proper operation and prevent damage! Under no circumstances should the amplifier be supported or suspended from its AC power cord or the input and output coaxial cables. Whenever possible, the amplifier should be mounted with the cooling fins in a vertical position to ensure proper heat dissipation. Slots and openings in the housing are provided for ventilation. To ensure reliable operation of

the product and protect it from overheating, these openings must not be blocked or covered. This product should not be placed in a built-in installation such as a cabinet or rack unless proper ventilation is provided.

5. **Proper Operation** – To insure proper operation, the amplifier should be adjusted to within its proper operating range as per the amplifier specifications. Failure to do so may result in improper operation and product failure.
6. **Fusing** – The amplifier contains an external fuse (5x20mm, 0.35A, 250V) and an internal fuse (5x20mm, 1.0A, 250V) for protection. Should the amplifier fail to operate, **unplug the unit**, check the external fuse, or remove the front cover and check the internal fuse. **Note, only replace fuse with the correct size fuse. Failure to do so may create a risk of fire or a hazardous situation.**
7. **Grounding or Polarization** – This amplifier is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin, the plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
8. **Power-Cord Protection** – Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
9. **Overloading** – Do not overload wall outlets as this can result in a risk of fire or electric shock.
10. **Object and Liquid Entry** – Never push objects of any kind into this amplifier through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the amplifier.
11. **Power Lines** – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
12. **Servicing** – Do not attempt to service this amplifier yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel. Repair or other replacement should be returned to TONER. (969 Horsham Road, Horsham, Pennsylvania 19044 USA).

13. **Outdoor Antenna Grounding** – If an outside antenna or cable system is connected to the amplifier, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI / NAPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

